

CLAIMS

1. A method comprising
causing separate executable agents each to perform tasks on associated
information that is changing over time, to produce current information,
5 delivering inputs and outputs among agents to enable assembly of a body of
aggregated and summarized management information, based on the current information,
to be used to manage at least a portion of an enterprise.
2. The method of claim 1 in which the agents are organized in accordance with a
network model.
- 10 3. The method of claim 2 in which the agents have ports to send and receive the
inputs and outputs.
4. The method of claim 2 in which at least some of the inputs and outputs pass
through routing devices between agents.
5. The method of claim 2 in which the routing devices comprise hubs, routers, and
15 gateways.
6. The method of claim 2 in which the agents are part of a network that conforms to
the network model and includes network links to deliver the inputs and outputs.
7. The method of claim 6 in which at least some of the links are temporary.
8. The method of claim 6 in which the temporary links define a dynamically
20 configured network that conforms to the network model.
9. The method of claim 6 in which at least some of the links are persistent.
10. The method of claim 2 in which a group of the agents operate in a subnetwork
that conforms to the network model, and the subnetwork comprises a portion of a
network that conforms to the network model.
- 25 11. The method of claim 10 in which another instance of the subnetwork comprises a
portion of another network that conforms to the network model.
12. The method of claim 1 in which the agents are distributed.
13. The method of claim 1 in which the agents are distributed at least in part
geographically.

14. The method of claim 1 in which at least some of the associated information is stored in databases.

15. The method of claim 1 in which at least some of the inputs and outputs comprise events.

5 16. The method of claim 1 in which at least some of the inputs and outputs comprise data.

17. The method of claim 2 in which elements that conform to the network model declare their capabilities to one another.

18. The method of claim 2 in which the agents comprise at least part of a network that
10 conforms to the network model and a process external to the network makes requests to the network for at least portions of the current information for use in assembling the body of management information.

19. The method of claim 18 in which the external process comprises an expert engine.

20. The method of claim 19 in which the expert engine is driven by a model.

15 21. A method comprising
from distributed repositories of data related to an enterprise, obtaining current data to be used in connection with managing at least a portion of the enterprise, the data from different ones of the repositories having formal and temporal inconsistencies,
enhancing the formal consistency of data received from different ones of the
20 repositories,
temporarily storing portions of the enhanced data to enhance temporal consistency of the data,
using a model of the portion of the enterprise to analyze the temporally and formally enhanced data and to generate resulting management data,
25 distributing the management data in a time frame that is current relative to the current data obtained from the repositories, and
the identity of the current data changing adaptively over time based on the model and on the resulting management data that is to be distributed.

22. The method of claim 21 in which the current data is pulled from the repositories.

30 23. The method of claim 21 in which the current data is pushed from the repositories.

24. The method of claim 21 also including storing the management data for later use.

25. The method of claim 21 in which the management data is distributed by notification to a process that uses the data.

26. The method of claim 21 in which the management data is distributed by automated delivery of the data to a process.

5 27. The method of claim 21 in which the current data is obtained in response to a need for the resulting management data to be distributed.

28. The method of claim 21 in which the current data is obtained at a time based on when the resulting management data is to be distributed.

29. The method of claim 21 in which the identity of the current data that is obtained is
10 based on the identity of the management data that is to be distributed.

30. A method comprising:

processing enterprise data from distributed repositories in an assembly line fashion to produce management data that is useful in managing at least a portion of the
15 enterprise, the assembly line including separate executable agents to perform tasks on the data, the agents including:

a cleansing agent to process data that would not otherwise be useful in producing the management data,

a normalizing agent to normalize the data,

20 a transformation agent to enhance the consistency of the data,

an assembler agent to assemble data to form the management data, and

a staging agent to form and stage data for further processing,

the sequence and tasks of the agents in the pipeline being adaptable to changes in the portion of the enterprise being managed.

25 31. A method comprising

storing and updating, in a cube, multi-dimensional current data about a portion of an enterprise,

storing, in a cube, data defining relationships between metrics used to manage a portion of the enterprise and the multi-dimensional current data,

30 storing, in a cube, metadata about the multi-dimensional current data, and

using the cubes to access current data in responding to queries, to generate management information useful in managing the portion of the enterprise.

32. A method comprising

accumulating current information about an enterprise from distributed repositories using separate executable agents organized in a network model, the current information that is accumulated being determined by predefined analytical processes that are associated with functional aspects of the enterprise and that use the current information to produce functional information about the enterprise, the enterprise belonging to a class of enterprises, and

processing the functional information to produce resulting management information, the processing being done in an application that is reusable for other enterprises belonging to the class .

33. The method of claim 32 in which the class comprises manufacturers.

34. The method of claim 32 in which the class comprises financial services enterprises.

35. The method of claim 32 in which the functional aspects include at least one of financial, supply chain, information technology, and sales.

36. A medium bearing instructions to cause a machine to:

cause separate executable agents each to perform tasks on associated information that is changing over time, to produce current information, deliver inputs and outputs among agents to enable assembly of a body of aggregated and summarized management information, based on the current information, to be used to manage at least a portion of an enterprise.

37. A medium bearing instructions to cause a machine to:

from distributed repositories of data related to an enterprise, obtain current data to be used in connection with managing at least a portion of the enterprise, the data from different ones of the repositories having formal and temporal inconsistencies, enhance the formal consistency of data received from different ones of the repositories, temporarily store portions of the enhanced data to enhance temporal consistency of the data,

use a model of the portion of the enterprise to analyze the temporally and formally enhanced data and to generate resulting management data,

distribute the management data in a time frame that is current relative to the current data obtained from the repositories, and

5 changing the identity of the current data adaptively over time based on the model and on the resulting management data that is to be distributed.

38. A medium bearing instructions to cause a machine to:

process enterprise data from distributed repositories in an assembly line fashion to produce management data that is useful in managing at least a portion of the enterprise,
10 the assembly line including separate executable agents to perform tasks on the data, the agents including:

a cleansing agent to process data that would not otherwise be useful in producing the management data,

a normalizing agent to normalize the data,

15 a transformation agent to enhance the consistency of the data,

an assembler agent to assemble data to form the management data, and

a staging agent to form and stage the data for further processing, and

adapt the sequence and tasks of the agents in the pipeline to changes in the portion of the enterprise being managed.

20 39. A medium bearing instructions to cause a machine to

store and update, in a cube, multi-dimensional current data about a portion of an enterprise,

store, in a cube, data defining relationships between metrics used to manage a portion of the enterprise and the multi-dimensional current data,

25 store, in a cube, metadata about the multi-dimensional current data, and

use the cubes to access current data in responding to queries, to generate management information useful in managing the portion of the enterprise.

40. A medium bearing instructions to cause a machine to

accumulate current information about an enterprise from distributed repositories
30 using separate executable agents organized in a network model, the current information that is accumulated being determined by predefined analytical processes that are

associated with functional aspects of the enterprise and that use the current information to produce functional information about the enterprise, the enterprise belonging to a class of enterprises, and

- 5 process the functional information to produce resulting management information,
the processing being done in an application that is reusable for other enterprises
belonging to the class .